

IN THE UNITED STATES DISTRICT COURT FOR THE
DISTRICT OF MASSACHUSETTS

PETER MILLER, CLIFFORD HOYT,
and CAMBRIDGE RESEARCH AND
INSTRUMENTATION, INC.

Plaintiffs,

v.

PATRICK TREADO and CHEMIMAGE CORP.

Defendants.

Case No. 05-10367 RWZ

**MEMORANDUM OF LAW IN SUPPORT OF DEFENDANTS'
MOTION TO DISMISS COUNTS 2-5, AND TO STAY COUNT 1
PENDING COMPLETION OF REISSUE PROCEEDING
BEFORE THE U.S. PATENT AND TRADEMARK OFFICE**

Defendants Patrick Treado ("Treado") and ChemImage Corporation ("ChemImage") (collectively "Defendants") submit this Memorandum of Law in support of their motion to dismiss Counts 2-5 of the Complaint filed by Plaintiffs Peter Miller ("Miller"), Clifford Hoyt ("Hoyt") and Cambridge Research and Instrumentation, Inc. ("CRI") (collectively "Plaintiffs") for lack of subject matter jurisdiction pursuant to Federal Rule of Civil Procedure 12(b)(1). Defendants also move to stay litigation over the remaining Count 1 pending completion of the reissue proceedings now before the U.S. Patent and Trademark Office ("PTO") involving the patent in suit.

INTRODUCTION

Notwithstanding the absence of any threat of a lawsuit by Defendants, Plaintiffs commenced this declaratory judgment action, asserting a series of inconsistent and insupportable claims. While on the one hand Plaintiffs seek an order declaring Defendant ChemImage's U.S. Patent No. 6,734,962 ("the '962 patent") as invalid and unenforceable, Plaintiffs simultaneously seek a declaration that they should be added as co-inventors to the '962 patent. At the same time, however, Plaintiffs also seek a purely speculative declaration of invalidity regarding any future patents that might issue to Defendants based upon inventions disclosed by the '962 patent. These claims should be dismissed and stayed for several reasons.

First, Plaintiffs fail to allege the justiciable case or controversy necessary for the Court's exercise of subject matter jurisdiction over the claims of patent invalidity and unenforceability. For a justiciable controversy to exist in suits requesting a declaration of invalidity or unenforceability, a declaratory judgment plaintiff must allege (1) acts by the patentee, which create a reasonable apprehension of suit on the part of the plaintiff, and (2) acts by the plaintiff that might subject it to a patent infringement suit. Neither element is present here.

Second, the Complaint should be dismissed to the extent that it seeks a declaration of invalidity relating to future patents that might issue based on the invention disclosed in the '962 patent. Because the patents may never issue, such a claim is not yet ripe for judicial review as a matter of law.

Third, this action should be stayed in any event. ChemImage has filed a reissue application before the PTO to amend the claims in the '962 patent. The reissue application seeks to narrow the scope of these claims such that they do not read on the prior art. Deferring litigation over the scope of the '962 patent pending the completion of this reissue application will

allow the PTO, with its technical expertise, to consider the prior art relied upon by Plaintiffs. The ensuing record developed by the PTO also will reduce the complexity and length of this litigation. A stay thus offers the additional benefit of preserving judicial economy and reducing the expense and effort for the parties.

For all of these reasons, as more fully set forth herein, Defendants respectfully request that the Court dismiss Counts 2-5 of the Complaint, and stay litigation over the remaining Count 1 pending completion of the reissue proceedings before the PTO.

ARGUMENT

A. Counts 2-5 Of The Complaint Should be Dismissed Because The Court Lacks Subject Matter Jurisdiction.

The United States Constitution limits jurisdiction of all Article III Courts to “cases and controversies.” U.S. Const. Art. III, § 2. Similarly, the Declaratory Judgment Act requires an “actual controversy” between the parties before a federal court may exercise jurisdiction over an action for a declaratory judgment. 28 U.S.C. § 2201(a). The standard for determining whether an “actual controversy” exists within the meaning of the Act is the same as that under the “case or controversy” requirement of the Constitution. Jervis B. Webb Co. v. Southern Systems, Inc., 742 F.2d 1388, 1398 (Fed. Cir. 1984) (citing Aetna Life Ins. Co. v. Haworth, 300 U.S. 227, 239-40 (1937)). In defining “controversy” for purposes of federal jurisdiction, the Supreme Court has stated:

The controversy must be definite and concrete, touching the legal relations of parties having adverse legal interests. It must be a real and substantial controversy admitting of specific relief through a decree of a conclusive character, as distinguished from an opinion advising what the law would be upon a hypothetical statement of facts.

Aetna, 300 U.S. at 241 (internal citations omitted). Moreover, courts have broad discretion in deciding whether an action is appropriate for declaratory judgment. See Wilton v. Seven Falls Co., 515 U.S. 277, 284 (1995).

In this case, Plaintiffs fail to allege a justiciable case or controversy necessary for the Court to exercise subject matter jurisdiction over the Plaintiffs' claims of patent invalidity.

1. Counts 2-3 and 5 of the Complaint Do Not Allege a Justiciable Case or Controversy Related to the Invalidity of the '962 Patent.

The Federal Circuit Court of Appeals has developed a two-pronged test to determine whether there is an “actual controversy” in suits requesting a declaration of patent non-infringement, invalidity or unenforceability. “There must be both (1) . . . an explicit threat or other action by the patentee, which creates a reasonable apprehension on the part of the declaratory plaintiff that it will face an infringement suit . . . , and (2) present activity which would constitute infringement or concrete steps taken with the intent to conduct such activity.” BP Chemicals Limited v. Union Carbide Corp., 4 F.3d 975, 978 (Fed. Cir. 1993) (emphasis added). Whether or not an explicit threat or other action by the patentee has created a reasonable apprehension of suit turns on the conduct of the patentee; the second prong turns on the conduct of the declaratory plaintiff. Arrowhead Indus. Water, Inc. v. Ecolchem, Inc., 846 F.2d 731, 736 (Fed. Cir. 1988). The purpose of the test is to determine whether the need for judicial attention is “real and immediate” or is “prospective and uncertain of occurrence.” BP Chemicals, 4 F.3d at 978. “The Declaratory Judgment Act was intended to protect threatened parties, not to drag a non-threatening patentee into court.” Shell Oil Co. v. Amoco Corp., 970 F.2d 885, 889 (Fed. Cir. 1992).

The presence or absence of a justiciable controversy must be determined on the facts existing at the time the complaint is filed. GAF Building Materials Corp. v. Elk Corp. of Dallas,

90 F.3d 479, 483 (Fed. Cir. 1996); Arrowhead, 846 F.2d at 734 n.2. The plaintiff seeking a declaratory judgment has the burden of both pleading and proving facts sufficient to establish a justiciable controversy. Spectronics Corp. v. H.B. Fuller Co., 940 F.2d 631, 634 (Fed. Cir.) (“The long established rule of law is that a declaratory judgment plaintiff must establish an actual controversy on the ‘totality of the circumstances.’”), cert. denied, 502 U.S. 1031 (1991). Where there is no actual controversy, the court is without power to grant declaratory relief. Maryland Casualty Co. v. Pacific Coal & Oil Co., 312 U.S. 270, 273 (1941).

The Court lacks subject matter jurisdiction over this action because there is no justiciable controversy between Plaintiffs and Defendants. First, there is no allegation that either ChemImage or Treado has made any accusation or threat. Second, Plaintiffs have not alleged the “immediate intention and ability” to practice the invention necessary for the exercise of subject matter jurisdiction over Plaintiffs’ invalidity and unenforceability claims.

a. Plaintiffs do not allege a reasonable apprehension of suit.

"There must be action by the patent holder sufficient to create an objectively reasonable apprehension that suit will be brought against the declaratory plaintiff." Phillips Plastics Corp. v. Kato Hatsujou Kabushiki Kaisha, 47 F.3d 1051, 1053 (Fed. Cir. 1995) (emphasis added); Shell, 970 F.2d at 888. A purely subjective apprehension of suit is insufficient to establish a justiciable case or controversy. Phillips, 57 F.3d at 1053. “The ‘reasonable apprehension of suit’ test requires more than the nervous state of mind of a possible infringer; it requires that the objective circumstances support such an apprehension.” Id. at 1053-54. Plaintiffs fail to meet this test here.

As set forth in the Complaint, the only communications between the parties relating to the '962 patent consist of two letters. In the first letter, Plaintiff requested a covenant not to sue

relating to the '962 patent. Compl. at Exh. G. In the letter, Plaintiffs called into question the validity of the '962 patent based on the alleged contributions by Plaintiffs Miller and Hoyt to the '962 patent. Id. In its written response, ChemImage denied that the '962 patent was invalid, given the evidence provided by Plaintiffs. Compl. at Exh. H ("Golub Letter"). ChemImage, however, offered to consider any other evidence Plaintiffs were willing to provide in support of the allegations of the supposed co-inventorship of Plaintiffs Hoyt and Miller. Id. Without any further response, Plaintiffs filed this lawsuit.

Under these facts, Plaintiffs lacked a reasonable apprehension of suit. Defendants did not take any action that would cause Plaintiffs to have such an apprehension. Plaintiffs do not allege that Defendants threatened suit against any one of them. Accordingly, Plaintiffs' claims for a declaration of patent invalidity and unenforceability should be dismissed.

b. Plaintiffs do not allege an “immediate intention and ability” to manufacture or sell an infringing product.

The Complaint also fails to present a justiciable controversy because Plaintiffs fail to allege that they have engaged in any activity that might subject them to an infringement suit from ChemImage. Plaintiffs do not allege that they have manufactured, sold or offered for sale any product that allegedly might reasonably serve as the basis for a justiciable controversy. See International Harvester Co. v. Deere & Co., 623 F.2d 1207, 1215 (7th Cir. 1980) (“Where there is no actual manufacture, use, or sale, and no immediate intention and ability to practice the invention, there is no justiciable controversy.”); Arrowhead, 846 F.2d at 736.

As the Seventh Circuit has explained:

The federal courts do not render advisory opinions on patent matters. Therefore, the “definite” intention of the plaintiff to take “immediate action” with respect to the potentially infringing product must have existed when suit was filed; this intention

should be evident from the preparatory steps outlined in its complaint.

International Harvester, 623 F.2d at 1215 (emphasis added); see Arrowhead, 846 F.2d at 736 (“Plaintiff may not, for example, obtain a declaratory judgment merely because it would like an advisory opinion on whether it would be liable for patent infringement if it were to initiate some merely contemplated activity.”).

Because Plaintiffs do not allege that they have manufactured any product they “intend[] to manufacture, sell and offer for sale,” there is no justiciable case or controversy. Accordingly, the Court should dismiss Plaintiffs’ claims for a declaration of invalidity and unenforceability.

2. Count 4 of the Complaint Fails to Allege a Justiciable Case or Controversy Based on Future Patents that Might Never Issue.

A declaratory judgment plaintiff seeking a judgment of invalidity with respect to a pending patent application does not have a sufficient "case or controversy" to warrant federal court review, because there is no issued patent for the court to declare invalid or not infringed. See GAF, 90 F.3d at 481. “Justiciability must be judged as of the time of filing,” and “later events may not create jurisdiction where none existed at the time of filing.” Spectronics, 940 F.2d at 635. Thus, “until a patent is issued, [a court’s] involvement would be premature and would encroach on the administrative function of the Commission.” See American General Ins. v. FTC, 496 F.2d 197, 200 (5th Cir. 1974); Display Research Labs. Inc. v. Telegen Corp., 133 F. Supp. 2d 1170, 1173 (N.D. Cal. 2001).

Count IV of the Complaint seeks a declaration that "any patent(s) issuing from the '077 application and the '481 application [two continuation applications of the '962 patent] ... be unenforceable as a consequence of the inequitable conduct which occurred during prosecution of

the '962 patent."¹ Compl. ¶ 56. Plaintiffs' request, however, is premature because no patents have yet issued from those applications, and thus the Court cannot "know with certainty whether a patent [will] issue [and], if so, what legal rights it would confer." See GAF, 90 F.3d at 482. Plaintiffs' request is, therefore, "purely hypothetical and [calls] for an impermissible advisory opinion. Id. Accordingly, Count IV should be dismissed.

B. This Litigation Should Be Stayed Pending Completion of Concurrent Proceedings Pending in the U.S. Patent and Trademark Office.

Recently, ChemImage filed a reissue application to amend the claims of the '962 patent. See Reissue Application, Exh. A hereto. Because the reissue application implicates issues raised in this litigation -- including the inventorship and invalidity issues raised by Plaintiff -- the Court should stay litigation over Count 1 and any remaining Counts of the Complaint pending completion of the reissue proceedings.

Federal courts have the inherent authority to order a stay pending conclusion of a proceeding in the PTO. See, e.g., Gould v. Control Laser Corp., 705 F.2d 1340, 1342 (Fed. Cir. 1993); GPAC, Inc. v. D.W. Enterprises, Inc., 114 F.R.D. 60, 62 (D.N.J. 1992); Fisher Controls Co., Inc. v. Control Components, Inc., 443 F. Supp. 581, 581-82 (S.D. Iowa 1977). This power is expressly recognized in the context of a stay pending a determination of a patent reissue application. Starlight Assoc. v. Berkey-Colortran, Inc., 201 U.S.P.Q. 307, 307 (S.D.N.Y. 1978).

PTO regulations permit a patentee whose patent is challenged to initiate a reissue application and, at the same time, seek a stay of judicial proceedings wherein the challenges are brought, until the PTO grants or rejects the reissue application. See Johnson & Johnson, Inc. v.

¹ Plaintiffs allege that Defendants filed a continuation patent application, serial no. 10/773,077 ("the '077 application"), and a continuation-in-part patent application, serial no. 10/610,481 ("the '481 application"), each of which claim priority to application serial no. 09/976,391, which later issued as the '962 patent. See Compl., ¶ 28.

Wallace A. Erickson & Co., 627 F.2d 57, 60 (7th Cir. 1980) (emphasis added). Courts have recognized the obvious benefits in granting stays pending completion of a concurrent PTO proceeding, including:

- All prior art presented to the court will have been first considered by the PTO, with its particular expertise.
- Many discovery problems relating to prior art can be alleviated by the PTO examination.
- In those cases resulting in effective invalidity of the patent, the suit will likely be dismissed.
- The outcome of the reexamination may encourage a settlement without the further use of the Court.
- The record of reexamination would likely be entered at trial, thereby reducing the complexity and length of the litigation.
- Issues, defenses and evidence will be more easily limited in pre-trial conferences after a reexamination.
- The cost will likely be reduced both for the parties and the Court.

Fisher Controls Co., 443 F. Supp. at 582 (citing "New Patent Office Rules May Aid Patent Litigation," The Third Branch, v. 9, No. 9, September 1977, at 7). In this case, a stay of these proceedings will realize all of these benefits.

Count I of the Complaint demands a declaratory judgment that Plaintiffs Miller and Hoyt are "co-inventors of the subject matter of one or more of the claims in the '962 patent," and requests that the Court correct the '962 patent. Compl., ¶ 33-34. Defendant ChemImage has invoked its rights to petition the PTO to correct and reissue the '962 patent.

The reissue application seeks to narrow the scope of the '962 patent claims such that they do not read on certain prior art which was disclosed to the PTO during the original prosecution of the '962 patent. The prior art at the focus of the reissue proceedings is a reference co-

authored by Plaintiffs Miller and Hoyt, and Defendant Treado² which describes "the use of a liquid crystal tunable filter suitable for high definition Raman chemical imaging" Reissue Application, Exh. A hereto at 6. This prior art reference discloses concepts that are the same or similar to those relied upon by Plaintiffs to support their inventorship and invalidity claims. To the extent that the claims of the '962 patent are successfully narrowed in the reissue proceedings such that they do not read on these prior art concepts, Plaintiffs' inventorship and invalidity claims will be mooted.

Based on the foregoing, the Court should exercise its discretion and stay this litigation pending completion of the reissue proceedings. The PTO will be able to evaluate the prior art upon which the Plaintiffs rely in this lawsuit and consider the effect of this prior art on the '962 patent. The reissue proceeding will likely address several issues that will impact Plaintiffs' claims of inventorship and invalidity under Sections 102 and 103. This will have the added benefit of preserving judicial economy and avoiding unnecessary expense to the parties.

In light of the early stage of the litigation and the likely resolution in the administrative proceeding of issues raised in the Complaint, and in the interests of judicial economy, Defendants respectfully request that the Court stay this litigation pending completion of the reissue proceedings.

² See H. Morris, C. Hoyt, p. Miller and P. Treado, "Liquid Crystal Tunable Filter Raman Chemical Imaging," Vol. 50, Applied Spectroscopy, No. 6, pp. 805-811 (1996) ("Raman Spectroscopy article").

CONCLUSION

For the reasons set forth herein, the Defendants respectfully request that the Court grant their motion to dismiss and motion to stay pending completion of the reissue proceedings now before the PTO.

Respectfully submitted,

Date: April 29, 2005

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Exhibit A

PTO/SB/50 (09-04)

Approved for use through 04/30/2007. OMB 0851-0033
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REISSUE PATENT APPLICATION TRANSMITTAL

Address to:

Mail Stop Reissue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attorney Docket No.

56751-5008 RE

First Named Inventor

TREADO

Original Patent Number

6,734,962

Original Patent Issue Date
(Month/Day/Year)

May 11, 2004

Express Mail Label No.

EV 260286640 US

APPLICATION FOR REISSUE OF:

(Check applicable box)



Utility Patent



Design Patent



Plant Patent

APPLICATION ELEMENTS (37 CFR 1.173)

1. ☒ Fee Transmittal Form (PTO/SB/56) (Submit a duplicate copy)
2. ☒ Applicant claims small entity status. See 37 CFR 1.27.
3. ☒ Specification and Claims in double column copy of patent format (amended, if appropriate)
4. ☒ Drawing(s) (proposed amendments, if appropriate)
5. ☒ Reissue Oath/Declaration (original or copy) (37 C.F.R. 1.175) (PTO/SB/51 or 52)
6. ☒ Power of Attorney
7. ☒ Original U.S. Patent currently assigned? ☒ Yes ☐ No
(If Yes, check applicable box(es))
☒ Written Consent of all Assignees (PTO/SB/53)
☒ 37 CFR 3.73(b) Statement (PTO/SB/96)
8. ☐ CD-ROM or CD-R in duplicate, Computer Program (Appendix) or large table
☐ Landscape Table on CD
9. Nucleotide and/or Amino Acid Sequence Submission (if applicable, items a. - c. are required)
 - a. ☐ Computer Readable Form (CRF)
 - b. Specification Sequence Listing on:
 - i. ☐ CD-ROM (2 copies) or CD-R (2 copies); or
 - ii. ☐ paper
 - c. ☐ Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

10. ☒ Statement of status and support for all changes to the claims. See 37 CFR 1.173(c).
11. ☐ Foreign Priority Claim (35 U.S.C. 119) (if applicable)
12. ☒ Information Disclosure Statement (IDS) PTO/SB/08 or PTO-1449
☒ Copies of citations attached
13. ☐ English Translation of Reissue Oath/Declaration (if applicable)
14. ☒ Preliminary Amendment
15. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
16. ☐ Other:

17. CORRESPONDENCE ADDRESS



The address associated with Customer Number:

OR



Correspondence address below

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Signature

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Date

3/30/05

Name (Print/Type)

ALISON WILBERG

Registration No. (Attorney/Agent)

45206

This collection of information is required by 37 CFR 1.173. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Reissue, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT
ATTORNEY DOCKET NO. 056751-5008 RE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
U.S. Patent No. 6,734,962)
Issue Date: May 11, 2004)
Filing Date: October 12, 2001)
Reissue Application No.: (Not Assigned))
For: NEAR INFRARED CHEMICAL IMAGING)
MICROSCOPE)

Mail Stop Reissue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REISSUE DECLARATION BY THE INVENTORS

We hereby declare that:

1. Each inventor's residence, mailing address and citizenship are stated below next to his name.
2. We believe that the inventors named below are the original and first inventor(s) of the subject matter which is described and claimed in United States Patent No. 6,734,962 (the "'962 patent"), issued on May 11, 2004 and for which a reissue patent is sought on the invention entitled: NEAR INFRARED CHEMICAL IMAGING MICROSCOPE the specification of which is attached hereto.
3. We have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment made during the prosecution of the application and any amendment submitted concurrently herewith.
4. We acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. §1.56.
5. We verily believe the original patent to be wholly or partly inoperative or invalid by reason of the patentee claiming more or less than the patentee had the right to claim in the patent.

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6. At least one error upon which this reissue application is based is described as follows:

- (a) As issued, claims 1 and 12 of the '962 patent are directed to a near infrared radiation chemical imaging system that includes "a device for collecting a spectrum of near infrared wavelength radiation light transmitted, reflected, emitted or scattered from said illuminated area of said sample and producing a collimated beam therefrom". Similarly, claim 13 is directed to a chemical imaging method that includes "collecting a spectrum of near infrared wavelength radiation light transmitted, reflected, emitted or scattered from said illuminated area of said sample and producing a collimated beam therefrom."
- (b) Further, claims 1 and 12 of the issued '962 patent refer to a near infrared imaging spectrometer, without further description of the type of filter included in the spectrometer. Similarly, claim 13 includes a filtering step, without reference to the type of filter used to perform the step.
- (c) Two articles were submitted to the Patent and Trademark Office for consideration during the prosecution of the '962 patent: Patrick J. Treado, Ira W. Levin, and E. Neil Lewis, "Indium Antimonide (InSb) Focal Plan Array (FPA) Detection for Near-Infrared Imaging Microscopy", *Applied Spectroscopy* 48, 607 (1994) ("Acousto-Optic Tunable Filter Reference"); and H. Morris, C. Hoyt, P. Filler and P. Treado, "Liquid Crystal Tunable Filter Raman Chemical Imaging", Vol. 50, *Applied Spectroscopy*, No. 6, pp. 805-811 (1996) ("Raman Spectroscopy Reference"). The Acousto-Optic Tunable Filter Reference and the Raman Spectroscopy Reference are referred to collectively herein as Prior Art.
- (d) The Acousto-Optic Tunable Filter Reference discloses near infrared spectroscopy using a refractive optical microscope and an acousto-optic tunable filter to display spectroscopic images of biological and polymeric systems. The Raman Spectroscopy Reference discloses use of a liquid crystal tunable filter suitable for high definition Raman chemical imaging. Raman chemical imaging involves Raman scattering and measures the energy differences between the incident light and the light that is scattered upon striking a sample, i.e., inelastic scattering. The resulting Raman scattered light is referred to as inelastically scattered light.
- (e) As a result of the inclusion of the term "scattered", and failure to specify that the type of filter used is a "liquid crystal tunable filter" in claims 1, 12 and 13, it appears that we may have claimed more than we were entitled to claim in claims 1, 12 and 13 of the '962 patent in view of the Prior Art.
- (f) We failed to appreciate this error during the prosecution of the patent application. However, the oversight was not a result of any deceptive intent. In fact, this Prior

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Art was submitted by the applicants during the prosecution of the '962 patent, was considered by the examiner, and is listed on the face of the '962 patent.

- (g) Claims 1, 12 and 13 of the present reissue application have been amended such that they claim subject matter that does not read on the Prior Art, as follows:

(1) Element (b) of claims 1 and 12, and step (b) of claim 13, include the term "scattered". Claims 1, 12 and 13 have been amended to delete this term.

(2) Element (c) of claims 1 and 12 fails to specify the type of filter included in the spectrometer. Similarly, claim 13 fails to indicate the type of filter that performs the filtering step (c). Claims 1 and 12 and claim 13 have been amended to specify, respectively, that the "spectrometer comprises a liquid crystal tunable filter" and the "filtering is performed using a liquid crystal tunable filter."

- (h) In addition, the reissue claims seek to remove the following apparent typographical errors which were discovered during the preparation of the present reissue application. The amendments to the following claims have thus been made in order to bring the claims into compliance with 35 U.S.C. § 112, second paragraph:

(1) Element (d) of claim 1 recites "a detector for collecting said filtered near infrared images", referring back to element (c) which recites "a near infrared imaging spectrometer for selecting a near infrared radiation image" (emphasis added). Thus, element (c) of claim 1 has been amended to include the plural term "images" and element (d) of claim 1 has been amended to include the term "said selected near infrared images" rather than "said filtered near infrared images", thereby providing proper antecedent basis in this claim.

(2) Element (d) of claim 12 recites "a detector for collecting said filtered near infrared images", referring back to element (c) which recites "a near infrared imaging spectrometer for selecting a near infrared radiation image" (emphasis added). Thus, element (c) of claim 12 has been amended to include the plural term "images" and element (d) of claim 12 has been amended to include the term "said selected near infrared images" rather than "said filtered near infrared images", thereby providing proper antecedent basis in this claim.

(3) Step (d) of claim 13 recites "collecting said filtered near infrared images", referring back to element (c) which recites "filtering said collimated beam to produce a near infrared radiation image". Thus, step (c) of claim 13 has been amended to include the plural term "images", thereby providing proper antecedent basis for this claim.

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(i) Accordingly, reissue claims 1, 12, and 13 seek to amend claims 1, 12 and 13 as follows:

1. (Amended) A near infrared radiation chemical imaging system comprising:

a) an illumination source for illuminating an area of a sample using light in the near infrared radiation wavelength;

b) a device for collecting a spectrum of near infrared wavelength radiation light transmitted, reflected[,] or emitted [or scattered] from said illuminated area of said sample and producing a collimated beam therefrom;

c) a near infrared imaging spectrometer for selecting [a] near infrared radiation images of said collimated beam, wherein the spectrometer comprises a liquid crystal tunable filter; and

d) a detector for collecting said selected [filtered] near infrared images.

12. (Amended) A chemical imaging system comprising:

a) an illumination source for illuminating an area of a sample using light in the near infrared radiation wavelength and light in the visible wavelength;

b) a device for collecting a spectrum of near infrared wavelength radiation light transmitted, reflected[,] or emitted [or scattered] from said illuminated area of said sample and producing a collimated beam therefrom;

c) a near infrared imaging spectrometer for selecting [a] near infrared radiation images of said collimated beam, wherein the spectrometer comprises a liquid crystal tunable filter;

d) detector for collecting said selected [filtered] near infrared images; and

e) a device for detecting said visible wavelength light from said illuminated area of said sample.

13. (Amended) A chemical imaging method comprising the steps of:

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- a) illuminating an area of a sample using light in the near infrared radiation wavelength and light in the visible wavelength;
 - b) collecting a spectrum of near infrared wavelength radiation light transmitted, reflected[,] or emitted [or scattered] from said illuminated area of said sample and producing a collimated beam therefrom;
 - c) filtering said collimated beam to produce [a] near infrared radiation images of said collimated beam while simultaneously detecting said optical wavelength light from said illuminated area of said sample, wherein the filtering is performed using a liquid crystal tunable filter;
 - d) collecting said filtered near infrared images; and
 - e) processing said collected near infrared images to produce a chemical image of said sample.
7. All errors corrected in this reissue application, up to the time of the filling of this reissue application, arose without any deceptive intention on the part of the applicants.
8. We hereby appoint the following practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

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We hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

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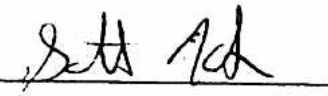
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PATENT
Attorney Docket No. 56751-5008RE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
U.S. Patent No. 6,734,962)
Issue Date: May 11, 2004)
Filing Date: October 12, 2001)
Reissue Application No.: (Not Assigned))
For: NEAR INFRARED CHEMICAL IMAGING)
MICROSCOPE)

PRELIMINARY AMENDMENT

Mail Stop Reissue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Prior to the examination of the above-identified application on the merits, please enter the following amendments.

Amendments to the Specification are reflected on page 2 of this paper.

Amendments to the Claims are reflected on page 3 of this paper.

Remarks begin on page 5 of this paper.

EXPRESS MAIL CERTIFICATE (37 C.F.R. § 1.10)

Express Mail Label No. EV260286646US

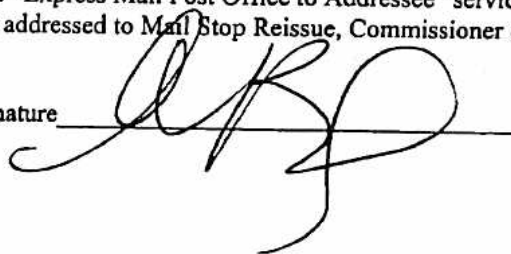
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I hereby certify that this paper, and the papers and/or fees referred to herein as transmitted, submitted or enclosed, are being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to Mail Stop Reissue, Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450.

Name Alison B. Weisberg

Signature



IN THE SPECIFICATION

Please replace the Abstract with the following:

A chemical imaging system is provided which uses a near infrared radiation microscope. The system includes an illumination source which illuminates an area of a sample using light in the near infrared radiation wavelength and light in the visible wavelength. A multitude of spatially resolved spectra of transmitted, reflected[,] or emitted [or scattered] near infrared wavelength radiation light from the illuminated area of the sample is collected and a collimated beam is produced therefrom. A near infrared imaging spectrometer is provided for selecting [a] near infrared radiation images of the collimated beam. The spectrometer comprises a liquid crystal tunable filter. The [filtered] selected images are collected by a detector for further processing. The visible wavelength light from the illuminated area of the sample is simultaneously detected providing for the simultaneous visible and near infrared chemical imaging analysis of the sample. Two efficient means for performing three dimensional near infrared chemical imaging microscopy are provided.

IN THE CLAIMS

Please amend claims 1, 12, and 13.

1. (Amended) A near infrared radiation chemical imaging system comprising:

- a) an illumination source for illuminating an area of a sample using light in the near infrared radiation wavelength;
- b) a device for collecting a spectrum of near infrared wavelength radiation light transmitted, reflected[,]or emitted [or scattered] from said illuminated area of said sample and producing a collimated beam therefrom;
- c) a near infrared imaging spectrometer for selecting [a] near infrared radiation images of said collimated beam, wherein the spectrometer comprises a liquid crystal tunable filter; and
- d) a detector for collecting said selected [filtered] near infrared images.

12. (Amended) A chemical imaging system comprising:

- a) an illumination source for illuminating an area of a sample using light in the near infrared radiation wavelength and light in the visible wavelength;
- b) a device for collecting a spectrum of near infrared wavelength radiation light transmitted, reflected[,]or emitted [or scattered] from said illuminated area of said sample and producing a collimated beam therefrom;
- c) a near infrared imaging spectrometer for selecting [a] near infrared radiation images of said collimated beam, wherein the spectrometer comprises a liquid crystal tunable filter;
- d) detector for collecting said selected [filtered] near infrared images; and

e) a device for detecting said visible wavelength light from said illuminated area of said sample.

13. (Amended) A chemical imaging method comprising the steps of:

- a) illuminating an area of a sample using light in the near infrared radiation wavelength and light in the visible wavelength;
- b) collecting a spectrum of near infrared wavelength radiation light transmitted, reflected[, or emitted [or scattered] from said illuminated area of said sample and producing a collimated beam therefrom;
- c) filtering said collimated beam to produce [a] near infrared radiation images of said collimated beam while simultaneously detecting said optical wavelength light from said illuminated area of said sample, wherein the filtering is performed using a liquid crystal tunable filter;
- d) collecting said filtered near infrared images; and
- e) processing said collected near infrared images to produce a chemical image of said sample.

REMARKS

The Abstract has been amended to secure substantial correspondence between the claims, the remainder of the specification and the drawings, in accordance with 37 C.F.R. § 1.173(f).

Statements of Status/Support for Changes to the Claims under 37 C.F.R. §1.173(c)

The status of the claims is as follows. Claims 1-16 were allowed in the parent application leading to U.S. Patent No. 6,734,962 (the "'962 patent"). Claims 1, 12, and 13 are amended by way of this amendment. The basis for the amendment is as follows.

As issued, claims 1 and 12 of the '962 patent are directed to a near infrared radiation chemical imaging system that includes "a device for collecting a spectrum of near infrared wavelength radiation light transmitted, reflected, emitted or scattered from said illuminated area of said sample and producing a collimated beam therefrom". Similarly, claim 13 is directed to a chemical imaging method that includes "collecting a spectrum of near infrared wavelength radiation light transmitted, reflected, emitted or scattered from said illuminated area of said sample and producing a collimated beam therefrom."

Further, claims 1 and 12 of the issued '962 patent refer to a near infrared imaging spectrometer, without further description of the type of filter included in the spectrometer. Similarly, claim 13 includes a filtering step, without reference to the type of filter used to perform the step.

Two articles were submitted to the Patent and Trademark Office for consideration during the prosecution of the '962 patent: Patrick J. Treado, Ira W. Levin, and E. Neil Lewis, "Indium Antimonide (InSb) Focal Plan Array (FPA) Detection for Near-Infrared

Imaging Microscopy”, Applied Spectroscopy 48, 607 (1994) (“Acousto-Optic Tunable Filter Reference”); and H. Morris, C. Hoyt, P. Filler and P. Treado, “Liquid Crystal Tunable Filter Raman Chemical Imaging”, Vol. 50, Applied Spectroscopy, No. 6, pp. 805-811 (1996) (“Raman Spectroscopy Reference”). The Acousto-Optic Tunable Filter Reference and the Raman Spectroscopy Reference are referred to collectively herein as Prior Art.

The Acousto-Optic Tunable Filter Reference discloses near infrared spectroscopy using a refractive optical microscope and an acousto-optic tunable filter to display spectroscopic images of biological and polymeric systems. The Raman Spectroscopy Reference discloses use of a liquid crystal tunable filter suitable for high definition Raman chemical imaging. Raman chemical imaging involves Raman scattering and measures the energy (i.e., wavelength) difference between the known incident light and the light that is scattered upon striking a sample (i.e., inelastic scattering). The resulting Raman scattered light is referred to as inelastically scattered light.

As a result of the inclusion of the term “scattered”, and failure to specify that the type of filter used is a “liquid crystal tunable filter” in claims 1, 12 and 13, it appears that the ‘962 patent claims more than the applicants were entitled to claim in claims 1, 12 and 13 in view of the Prior Art.

The applicants failed to appreciate this error during the prosecution of the patent application. However, the oversight was not a result of any deceptive intent. In fact, the Prior Art was submitted by the applicants during the prosecution of the ‘962 patent, was considered by the examiner, and is listed on the face of the ‘962 patent.

Claims 1, 12 and 13 of the present reissue application have been amended such that they claim subject matter that does not read on the Prior Art, as follows. Element (b) of claims 1 and 12, and step (b) of claim 13, include the term “scattered”. Claims 1, 12 and 13 have been amended to delete this term. Support for this amendment can be found in the ‘962 patent at column 3, line 22 – 25, column 4, lines 57 – 67, and in the claims as originally filed in the application that matured into the ‘962 patent. Element (c) of claims 1 and 12 fails to specify the type of filter included in the spectrometer. Similarly, claim 13 fails to indicate the type of filter that performs the filtering step (c). Claims 1, 12 and claim 13 have been amended to specify, respectively, that the “spectrometer comprises a liquid crystal tunable filter” and the “filtering is performed using a liquid crystal tunable filter.” Support for this amendment can be found in the ‘962 patent at column 4, lines 45 – 56 and in more detail at column 5, lines 31 – 41.

In addition, the reissue claims seek to remove the following apparent typographical errors which were discovered during the preparation of the present reissue application. The following amendments to the claims have thus been made in order to bring the claims into compliance with 35 U.S.C. § 112, second paragraph.

Element (d) of claim 1 recites “a detector for collecting said filtered near infrared images”, referring back to element (c) which recites “a near infrared imaging spectrometer for selecting a near infrared radiation image” (emphasis added). Thus, element (c) of claim 1 has been amended to include the plural term “images” and element (d) of claim 1 has been amended to include the term “said selected near infrared images” rather than “said filtered near infrared images”, thereby providing proper antecedent basis in this claim.

Element (d) of claim 12 recites “a detector for collecting said filtered near infrared images”, referring back to element (c) which recites “a near infrared imaging spectrometer for selecting a near infrared radiation image” (emphasis added). Thus, element (c) of claim 12 has been amended to include the plural term “images” and element (d) of claim 12 has been amended to include the term “said selected near infrared images” rather than “said filtered near infrared images”, thereby providing proper antecedent basis in this claim.

Step (d) of claim 13 recites “collecting said filtered near infrared images”, referring back to element (c) which recites “filtering said collimated beam to produce a near infrared radiation image”. Thus, step (c) of claim 13 has been amended to include the plural term “images”, thereby providing proper antecedent basis for this claim.

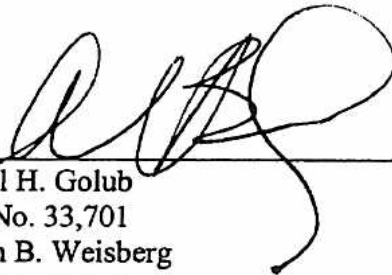
Accordingly, claims 1, 12, and 13 have been amended to reflect these corrections. Claims 1-16 are now pending.

In accordance with 37 C.F.R. § 1.178(b), applicants hereby call to the attention of the Patent Office the following proceeding in which the '962 patent is currently involved: Cambridge Research & Instrumentation, Inc., et al. v. ChemImage Corporation et al., action no. 05 10367(RWZ) (D. Mass). This action is currently pending. A complaint has been filed, a copy of which is attached hereto. The applicants request that this reissue application be examined at this time and not be stayed pending the outcome of the litigation.

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The applicants respectfully request consideration of the subject application in view of the above amendments and remarks. Applicants looks forward to a favorable Office Action on the merits.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'D. Golub', is written over a horizontal line.

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4/11/05